Claims

[c1] 1. A driving circuit design for a display device having a plurality of pixels with each pixel including a driving thin film transistor and an organic light emitting diode, the design comprising:
each pixel receiving an identical data voltage; and
modifying the driving current generated by the driving thin film transistor through the adjustment of the width/length ratio of the driving thin film transistor so that the luminance of red light emitted from a red organic light emitting diode, the luminance of green light emitted from a green organic light emitting diode and the luminance of blue light emitted from a blue light emitting diode are in such a ratio that white light is produced and full coloration is attained.

[c2] 2. The driving circuit design of claim 1, wherein the driving current passes between the drain terminal and the gate terminal of the driving thin film transistor.

[c3] 3. The driving circuit design of claim 1, wherein the luminance of red light emitted by an organic light emitting diode depends on the structure and material forming the organic light emitting diode.

[c4] 4. The driving circuit design of claim 1, wherein the luminance of green light emitted by an organic light emitting diode depends on the structure and material forming the organic light emitting diode.

[c5] 5. The driving circuit design of claim 1, wherein the luminance of blue light emitted by an organic light emitting diode depends on the structure and material forming the organic light emitting diode.

[c6] 6. The driving circuit design of claim 1, wherein the luminance and emission efficiency of red light is proportional to the driving current flowing across unit area of the red organic light emitting diode.

[c7] 7. The driving circuit design of claim 1, wherein the luminance and emission efficiency of green light is proportional to the driving current flowing across area of the green organic light emitting diode.

[c8] 8. The driving circuit design of claim 1, wherein the luminance and emission efficiency of blue light is proportional to the driving current flowing across unit area of the blue organic light emitting diode.

[c9] 9. The driving circuit design of claim 1, wherein the source terminal of the driving thin film transistor is coupled to the positive terminal of the organic light emitting diode.

[c10] 10. The driving circuit design of claim 1, wherein the drain terminal of the driving thin film transistor is coupled to a power supply at a first voltage level.

[c11] 11. The driving circuit design of claim 1, wherein the negative terminal of the organic light emitting diode is coupled to a power supply at a second voltage level.

[c12] 12. The driving circuit design of claim 1, wherein each pixel further includes:
a thin film transistor switch having a drain terminal, a gate terminal and a source terminal, wherein the drain terminal is coupled to the data voltage, the gate terminal is coupled to a scanning voltage and the source terminal is coupled to the gate terminal of the driving thin film transistor; and
a capacitor having a first terminal and a second terminal, wherein the first terminal is coupled to the source terminal and the gate terminal of the driving thin film transistor, and the second terminal is coupled to a power supply at a third voltage level.